

REMARKS

The Office Action of June 26, 2002 has been received and its contents carefully considered.

The Examiner has made of record the telephone restriction requirements and applicants' election of the invention of species (k), that is, a light emitting material comprising a compound having a partial structure represented by formula (21) and a light-emitting device comprising the material. The Examiner states that claims 1, 2 and 5-9 read on the elected species. The Examiner requires that applicants affirm this election when responding to the Office Action. In response, Applicants hereby affirm this election.

Applicants have amended claims 5 and 6, and have added new claims 10 to 17.

Support for the amendment to claim 5 and/or adding of claims 10 to 17 can be found in the descriptions at pages 34 to 36 of the present specification, and the descriptions in the H. Yersin et al document "Photochemistry and Photophysics of Coordination Compounds", which is described at page 16, line 10 of the present specification. A copy of pages 140 and 141 of this document is attached. Applicants note that the term "ortho-metalating ligands" that appears in new claim 14 is described at line 15 at page 141 of the "Photochemistry and Photophysics of Coordination Compounds" document.

Claims 1, 2, 5-7 and 9 have been rejected under the second paragraph of 35 U.S.C. § 112 as indefinite.

(a) The Examiner states that in claims 1 and 5, the description of Z^{11} and Z^{12} for formula (4) is not clear. The Examiner further states that the description of Z^{21} and Z^{22} for formula (7) is not clear. The Examiner states that these descriptions allow "said ring" to form a

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condensed ring "with the other ring". The Examiner states that it is not clear if this means that the ring formed in part by Z^{11} may condense with a ring formed in part by Z^{12} , or whether there is some alternative meaning to this language. The Examiner makes the same comment with respect to Z^{21} and Z^{22} .

In response, Applicants have amended the term "with the other ring" to read -- with another ring-- in independent claim 5. See, for example, compound (1-32) at page 43 of the specification. Further, claims 1, 2 and 9 have been cancelled.

(b) The Examiner has set forth a number of reasons why the Examiner believes claim 9 is indefinite.

Applicants have cancelled claim 9 and, accordingly submit that this rejection is moot.

In view of the above, Applicants submit that the claims comply with the requirements of the second paragraph of 35 U.S.C. § 112 and, accordingly, request withdrawal of this rejection.

Claim 1 has been rejected under 35 U.S.C. § 102(b) as anticipated by the Maestri et al article.

Applicants have cancelled claim 1 and accordingly, submit that this rejection is moot.

Claim 8 has been rejected under 35 U.S.C. § 102(b) as anticipated by the Baldo et al article.

Applicants have cancelled claim 8 and, accordingly, submit that this rejection is moot.

Claims 1 and 5 to 8 have been rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent Application Publication 2002/0034656A1 to Thompson et al.

The Examiner has stated that Thompson et al disclose complexes that satisfy formulas (1) to (3) of the above claims.

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In response, Applicants have cancelled claim 1 and have amended independent claim 5 so that it does not recite formulas (1) to (3). In addition, claim 8 has been cancelled.

In view of the above, Applicants submit that claims 5 to 7 are not anticipated by Thompson et al and, accordingly, request withdrawal of this rejection.

Claims 1 and 5 to 8 have been rejected under 35 U.S.C. § 102(e) as anticipated by Forrest et al.

The Examiner has stated that Forrest et al disclose derivatives that satisfy formula (3) of claim 1.

As discussed above, Applicants have cancelled claim 1 and have amended independent claim 5 so that it does not recite formula (3). In addition, claim 8 has been cancelled.

In view of the above, Applicants submit that claims 5 to 7 are not anticipated by Forrest et al and, accordingly, request withdrawal of this rejection

Claims 1 and 4-9 have been provisionally rejected under 35 U.S.C. § 102(e) as anticipated by co-pending application No. 09/695,979.

The Examiner relies on compound (f) on page 51 of the co-pending application as being a compound which satisfies formula (21) which appears in claim 5 and formula (23) which appears in claim 4.

As noted above, Applicants have cancelled claims 1 to 4, 8 and 9. In addition, Applicants have amended claim 5. Since this is a provisional rejection, Applicants will defer responding to this rejection until the co-pending application matures as a patent.

Claims 2, 4 and 9 have been rejected under 35 U.S.C. § 103(a) as obvious over the Thompson et al patent application publication.

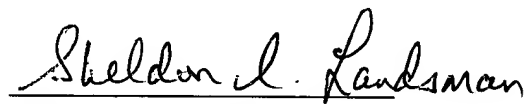
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Applicants have cancelled claims 2, 4 and 9 and, accordingly, submit that this rejection is moot.

In view of the above, reconsideration of this application is now believed to be in order, and such action is hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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WASHINGTON OFFICE



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PATENT TRADEMARK OFFICE

Date: December 26, 2002

APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

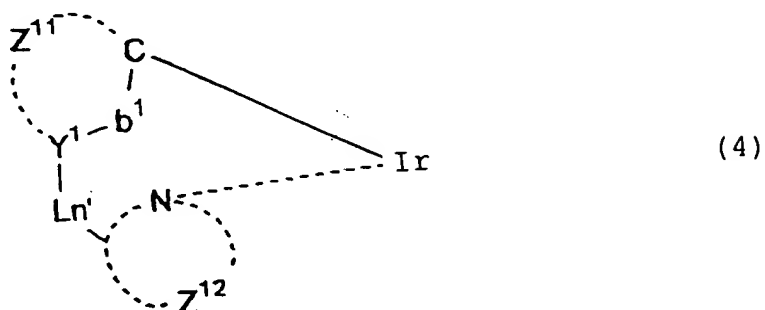
IN THE CLAIMS:

Claims 1 to 4, 8 and 9 are canceled.

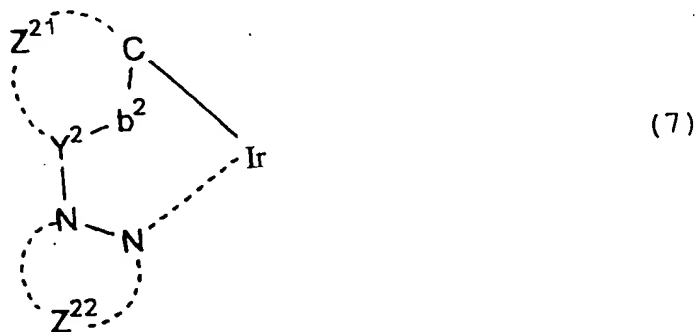
The claims are amended as follows:

5. (Amended) An organic light-emitting device comprising a light-emitting layer or a plurality of thin organic compound layers containing a light-emitting layer formed interposed between a pair of electrodes, wherein at least one layer comprises a light-emitting material having a partial structure represented by the following formula ~~(1)-(4)~~to ~~(10)~~(9), (20), (21), (22) or a tautomer thereof:

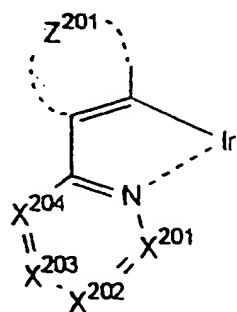
wherein R^1 and R^2 each represent a substituent; and q^1 and q^2 each represent an integer of from 0 to 4, with the proviso that the sum of q^1 and q^2 is 1 or more,



wherein Z^{11} and Z^{12} each represent a nonmetallic atom group required to form a 5- or 6-membered ring with at least one of carbon atom and nitrogen atom, said ring optionally having a substituent or forming a condensed ring with ~~the other~~ another ring; Ln^1 represents a divalent group; Y^1 represents a nitrogen atom or carbon atom; and b^1 represents a single bond or double bond,

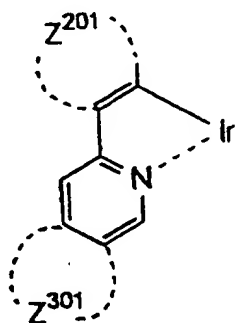


wherein Z^{21} and Z^{22} ~~each represent~~ represents a nonmetallic atom group required to form a 5- or 6-membered ring with at least one of carbon atom and nitrogen atom, said ring optionally having a substituent or forming a condensed ring with ~~the other~~ another ring; Y^2 represents a nitrogen atom or carbon atom; and b^2 represents a single bond or double bond, Z^{22} represents a nonmetallic atom group required to form an imidazole ring, thiazole ring, oxazole ring, pyrrole ring, 1,2,3-triazole ring, 1,2,4 triazole ring, pyridine ring or pyrimidine ring.



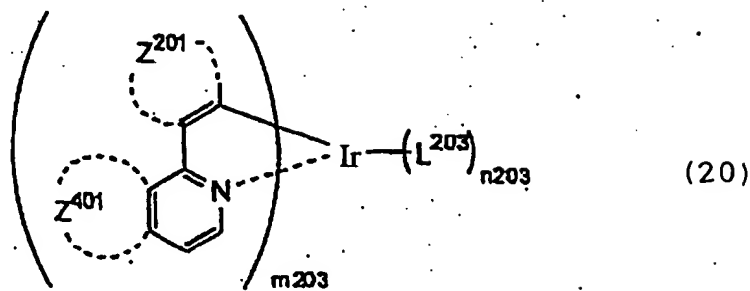
(8)

wherein X^{201} , X^{202} , X^{203} and X^{204} each represent a nitrogen atom or C-R and forms a nitrogen-containing heteroaryl 6-membered ring with $-C=N-$, with the proviso that at least one of X^{201} , X^{202} , X^{203} and X^{204} represents a nitrogen atom; R represents a hydrogen atom or substituent; and Z^{201} represents an atomic group for forming an aryl or heteroaryl ring,

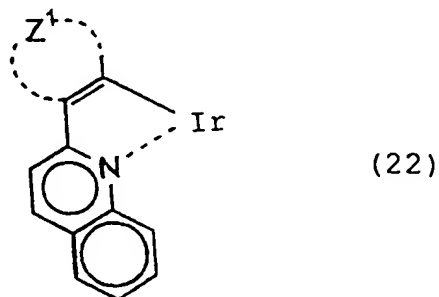
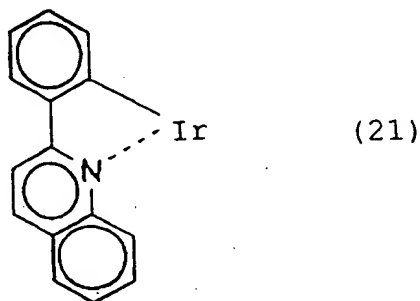


(9)

wherein Z^{201} and Z^{301} each represent an atomic group for forming an aryl or heteroaryl ring,



wherein Z^{201} and Z^{401} each represent an atomic group for forming an aryl or heteroaryl ring,
 wherein Z^{201} and Z^{401} each represents an atomic group for forming an aryl or heteroaryl ring,
 L^{203} is a ligand, required to form an orthometalated iridium complex to coordinate Ir metal as
 bidentate ligand m203 represents an integer of from 1 to 3 and n203 represents an integer of
 from 0 to 2,



wherein Z^1 represents an atomic group which forms a heteroaryl ring.

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6. (Amended) ~~An~~The organic light-emitting device according to claim 5, wherein
at least one layer consists essentially of the light-emitting material.

Claims 10 to 17 are added as new claims.